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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,326

01/24/2007

Saadettin Sel

12007-0070

9415

22902

7590

03/01/2011

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EXAMINER

COBURN, LESLIE ANN

ART UNIT

PAPER NUMBER

3774

MAIL DATE

DELIVERY MODE

03/01/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,326	<b>Applicant(s)</b> SEL ET AL.	
	<b>Examiner</b> LESLIE COBURN	<b>Art Unit</b> 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-14 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) 6-12,18,19 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-14 and 18-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

Claims 1, 3-14, and 18-22 are pending. Claims 6-12, 18-19, and 21 are withdrawn as being directed to the non-elected species. Claims 2 and 15-17 are canceled.

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/1/2010 has been entered.

### ***Response to Arguments***

2. Applicants arguments filed on 1/18/2011 have been fully considered, but they are not persuasive as noted below.

The examiner continues to take the position that claim 1 is not generic. The specification does not disclose the chambered species including a Fresnel lens on the anterior surface. The specification discloses only "the first chamber, i.e. the front part of the lens device, is constructed with elastic, transparent material so that the curve and,

Art Unit: 3774

therefore, the focal distance of the convex part is variable.” The specification does not disclose that the convex part for the anterior chamber could be a Fresnel lens. Further, all Figures drawn to the chambered species exclude the Fresnel lens. Although, the foreign claim set does include a dependency such that the chambered species includes a Fresnel lens in one embodiment, the specification does not support this claim.

Therefore, as the specification does not support claims linking the structure of a Fresnel lens to the chambered species, the distinction of the two species set forth in the election of species restriction requirement on 12/15/2010 is maintained.

### ***Specification***

3. The disclosure is objected to because of the following informalities: the specification states “spherical **or** non-spherical curves” while the claims state “spherical **and** non-spherical segments”. The specification should be corrected to properly support the claimed material.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claim 3** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

Art Unit: 3774

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim language recites "wedge-shaped recesses can be inclined at different angles." One interpretation is that the applicant intended each wedge to have different angles relative to each other (e.g. Figure 2 with only angle 36 versus Figure 3 with angles 36 and 37). If this is the case, then the angles would not result in inclined areas that are parallel to each other as required by Claim 1, which Claim 3 depends upon. These claims therefore directly contradict each other as the inclined areas cannot both be parallel and non-parallel at the same time. As this situation is impossible, Claim 3 cannot be enabled as written.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language recites "wedge-shaped recesses can be inclined at different angles." It is unclear what the applicant means by "can be." It is unclear if the applicant intended each wedge to have different angles relative to each other (e.g. Figure 2 with only angle 36 versus Figure 3 with angles 36 and 37) or if the wedges can be designed to have a different angle from one lens compared to another lens. If the former is the case, claim 3 directly contradicts claim 1, which recites having inclined areas parallel to each other.

Further, a third interpretation is possible such that the intention is that the angle may be changed post-implantation as described by the species with two chambers. If this is the case, claim 3 should be withdrawn as it is directed to the non-elected species.

For purposes of this examination the examiner interprets this claim to mean the angles may be different relative to each other since this meaning appears closest to the wording of the claim and appears in the application (Figure 3) even though it contradicts Claim 1.

8. **Claim 4** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is a lack of antecedent basis for the term "posterior rear side" as claim 1 specifies a "posterior side." Further, the term "recesses" lacks antecedent basis because claim 1 identifies "wedge-shaped recesses."

9. **Claim 13** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In general Claim 13 is difficult to understand making it unclear what the applicant is claiming. Following are specific examples of where the claim is indefinite.

Claim 13 recites "in combination with these" in line 3. It is unclear what "these" refers to. The applicant first says at sites without one of 3 features (lines 1 and 2), and follows that statement (in lines 2-3) with but in "combination with these." The device cannot have sites without the features in combination with the excluded features.

Art Unit: 3774

Further, the use of "in combination with these" suggests that the sites with out the features may be combination with something else. Therefore, this statement is indefinite because it does not properly define what "these" refers to. Further, if the former concept is correct, the statement contradicts itself.

Claim 13 recites "whereby these due to..." It is unclear what "these" refers back to. These could refer to the optical means, or the sites without one of the three listed features, or the combination that was not clearly described as discussed supra.

Finally, the last phrase of the claim, "whereby these due to the reduction of the thickness of the lens device can also be provided in the path of rays before or behind the lens device," is unclear and appears to lack proper punctuation to distinguish which parts of the phrase are grouped together. Further "the path of rays" lacks antecedent basis.

For purposes of examination the examiner interprets Claim 13 to be the lens of claim 1 less the features listed in line 2 and in combination with an optical means, such as another lens.

### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

11. **Claims 1, 13, and 20** are rejected under 35 U.S.C. 102(b) as being anticipated by Reynard (US 2003/0014107 A1).

Regarding **Claim 1**, Reynard discloses a two-sided lens with a fixation element (haptic extensions, element 36, e.g. Figure 14), where one side is made of spherical and non-spherical segments (spherical and aspherical zones [0031]) that could make a Fresnel lens. The other side of the lens contains a plurality of wedge-shaped recesses that are parallel to each other and extend (in this case in an interrupted or non-continuous manner) along the entire posterior side (Figure 7).

Regarding **Claims 13 and 20**, in addition to the features discussed supra for claim 1, Reynard discloses a lens that has sites lacking “wedge-shaped recesses or convex lens parts or segments of Fresnel lens” (e.g. Figure 8, 9, or 10) that can be combined with an optic means that is a lens. In the abstract, Reynard teaches that the lens device can be used with the natural lens (phakic).

### ***Claim Rejections - 35 USC § 102/103***

12. **Claim 1** is rejected under 35 U.S.C. 102(b) as anticipated by Reynard (US 2003/0014107 A1) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Reynard (US 2003/0014107 A1) in view of Schlegel (US 4,673,406).

Reynard discloses a lens where one side is made of spherical and non-spherical segments (spherical and aspherical zones [0031]) that could make a Fresnel lens. If these zones are not interpreted by the applicant as Fresnel lenses (as they are by the examiner), then Schlegel teaches a two-sided lens where both sides can be of the



Art Unit: 3774

Fresnel type (abstract). It would have been obvious to one of ordinary skill in the art from the teachings of Schlegel to use Fresnel type lenses on both sides of the lens of Reynard to allow for a multifocal lens that is of a single element which would be smaller than multiple implantable lenses thereby reducing the surgical complexity.

***Claim Rejections - 35 USC § 103***

13. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynard (US 2003/0014107 A1) in view of Cohen (US 4,881,805).

Reynard discloses the invention substantially as claimed but fails to teach the wedge shaped recesses may be inclined at different angles. Cohen illustrates wedge shaped recesses that are inclined at a variety of angles in Figures 3, 4, and 6. It would have been obvious to one of ordinary skill in the art from the teachings of Cohen to use a variety of angles in the lens of Reynard to selectively redirect the light while keeping the lens size smaller than traditional lenses.

14. **Claims 4, 5, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynard (US 2003/0014107 A1) in view of Stoy (US 4,731,079).

Reynard discloses the invention substantially as claimed but fails to teach a protective layer capable of filling the wedge-shaped recesses, a coating with a refraction index equal to that of the chamber fluid of the eye, and haptics that may be made of a material with a refraction index equal to that of the chamber fluid of the eye. Stoy discloses a lens with a protective coating (encapsulation of the IOL, column 10, line 51) that may be made of a material with a refraction index equal to that of the chamber fluid

Art Unit: 3774

of the eye (column 10, lines 53-55). Further, this material may be used to make the haptic portion of the IOL (column 11, lines 21-24).

It would have been obvious to one of ordinary skill in the art from the teachings of Stoy to apply a protective coating to the invention of Reynard in order to fill in the recesses and prevent light reflection at wedge edges.

It would have been obvious to one of ordinary skill in the art from the teachings of Stoy to use a coating with a refraction index similar to that of the chamber fluid in the eye on the invention of Reynard and to make the haptics of the Reynard invention of the same material to provide a base refractive index for the overall IOL.

15. **Claim** 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynard (US 2003/0014107 A1) in view of Hung, et al (Hung) (US 4,963,160).

Reynard discloses the invention substantially as claimed but fails to teach a UV-protective film. Hung teaches an ultraviolet absorbing agent for bonding to an ocular lens (e.g. abstract). It would have been obvious to one of ordinary skill in the art from the teachings of Hung to use a UV-protective film on the invention of Reynard to protect the interior of the eye from harmful UV-light.

#### ***Additional References of Note***

Claoue (US 7,410,500 B2) discloses an invention which includes parallel, continuous, wedge-shaped recesses (Fresnel prisms), which can be located on either side of the lens. Kern (US 4,601,545) discloses an invention that can have Fresnel type lenses on both the anterior and posterior side. Further, the Fresnel structure can be

Art Unit: 3774

that of parallel, continuous, wedge-shaped recesses as shown in Figures 7c and 7d of the Kern patent.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LESLIE COBURN whose telephone number is (571)270-7044. The examiner can normally be reached on M-Th 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 3774

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